APPENDIX A

TRANSPORTATION PLAN

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1.0 INTRODUCTION

The former University of California (UC) Bay Area Research and Extension Center (BAREC) is located on 90 North Winchester Boulevard in Santa Clara, California (the site), as shown in Figure 1 of the Removal Action Workplan (RAW). The area surrounding the site consists primarily of residential and commercial land. Immediately surrounding the site to the north, west and south are residential homes. To the south of the site along Winchester Boulevard, there is a commercial building, a veterinary clinic and a parking lot. To the east, northeast and southeast beyond Winchester Boulevard are areas used for commercial purposes.

An environmental investigation was conducted at the former UC BAREC to determine whether current or past chemical use at the site has resulted in soil concentrations that might pose a threat to public health and the environment. The BAREC was used as an agricultural research station since the 1920s. Part of the research at the BAREC involved demonstrating the efficacy of a variety of research and development (R&D) pesticides. Fourteen of the 90 chemicals used on crops at the research station were considered of potential concern because of their toxicity and persistence in the environment. Arsenic and dieldrin were the chemicals of potential concern that were found at concentrations above USEPA Preliminary Remediation Goals in surface soils.

Based on the additional soil sampling results, a Removal Action Workplan (RAW) has been prepared to address the elevated concentrations of pesticides-related chemicals in the eastern sector of Field 4 and three hot spots. Excavation and offsite disposal of soils with elevated arsenic and dieldrin levels was recommended based on effectiveness, implementablility and cost. Soil with concentrations above clean-up goals are planned to be excavated from the site and disposed of at a nearby non-hazardous, municipal landfill. This Transportation Plan is prepared as a key component of the RAW. All removal, transportation and disposal activities will be performed in accordance with all applicable federal, state, and local laws, regulations, and ordinances.

2.0 WASTE TRANSPORTATION, HANDLING AND MANAGEMENT

The volume of excavated soil is estimated to be approximately 6,000 cubic yards. The chemicals of potential concern in the excavated soil driving the removal effort are arsenic and dieldrin.

2.1. WASTE PROFILE

The waste material will be profiled for acceptance by the disposal facility and approval from the disposal facility will be obtained before any excavation activities commence. Additional documentation will be provided to DTSC pertaining to waste disposal profiles and waste disposal acceptance prior to any off-site shipments of waste.

2.2. REQUIREMENT OF TRANSPORTERS

Only qualified transporters will be hired for hauling the excavated soil off-site. The selected transporters will be fully licensed and insured to transport the excavated soil.

2.3. TRAFFIC CONTROL PROCEDURES

Impacted soil for off-site disposal will be transported in end-dump trailers/trucks to the designated disposal facility. Prior to loading, all dump trucks will be staged on site to avoid impacts on the local streets. Dump trucks to be loaded will not be allowed to cross removal or staging areas. Traffic will be coordinated in such a manner that, at any given time, no more than three dump trucks will be on the site, to reduce truck traffic on surrounding surface streets and reduce dust generation during on-site transportation. While on the site, all vehicles will be required to maintain slow speeds (i.e., less than five miles per hour) for safety purposes and for dust control measures. A traffic flag person will be used to control truck traffic entering and leaving the site.

2.4. TRUCK LOADING OPERATIONS

Trucks will be loaded on the designated portion of the staging area. A hydraulic backhoe (or similar equipment) will load the soil from the stockpile into dump trucks for transportation to the designated disposal facility. All vehicles will be decontaminated prior to leaving the work area. All stray waste material on vehicles, tires, etc., will be brushed off and sprayed off with water, if necessary. Then the dump truck will be covered with a tarp to prevent the excavated soil and/or dust from spilling out of the truck during transport to the disposal facility. Prior to leaving the load-out area, each truck will

be inspected by the site manager to ensure that the payloads are adequately covered, the trucks are cleaned of contaminated soil, and the shipment is properly documented. Each truck will receive the proper placarding and paper work. Water spray or mist, as appropriate, will be applied during loading operations for dust control purposes.

2.5. SHIPMENT DOCUMENTATION

Non-hazardous Waste Shipment

Assuming the excavated soil is profiled as non-hazardous waste, a proper shipping document (such as bill of landing or invoice or non-hazardous waste manifest) will be used to document and accompany each truck shipment. At a minimum, the shipping document will include the following information:

- Name and Address of Waste Generator
- Name and Address of Waste Transporter
- Name and Address of Disposal Facility
- Description of the Waste
- Quantity of Waste Shipped

The site manager will maintain a copy of the shipping document for each truckload on-site until completion of the removal action.

2.6. OFF-SITE LAND DISPOSAL FACILITIES

For the purposes of this Transportation Plan, the soil is assumed to be non-hazardous waste. The material is planned to be transported to a Class 3 landfill. Specified below are two nearby landfills appropriate for the disposal of the excavated soil:

BFI Newby Island Landfill
1601 Dixon Landing Road
Milpitas, California 95035
Phone: (408) 262-8100

or

Kirby Canyon Landfill
910 Coyote Creek Golf Drive
Morgan Hill, California 95037

Phone: (408) 779-2206

Final determination of the landfill selected for disposal will be based on approval from the landfill. Once the landfill is determined, DTSC will be notified by email and/or telephone.

2.7. TRANSPORTATION ROUTES

Transportation of the excavated soil will be on arterial streets and/or freeways approved for truck traffic to minimize any potential impact on the local neighborhood. If the soil is accepted by the BFI Newby Island Landfill, the transport trucks will exit the site on North Winchester Boulevard and turn right to travel south for approximately 0.3 miles to Stevens Creek Boulevard; turn left on Stevens Creek Boulevard; and take the ramp for northbound Interstate 880 Freeway and travel for approximately 9.3 miles, take the Dixon Landing Road West exit. By turning right off the freeway ramp, the trucks will arrive at the BFI Newby Island Landfill, located at 1601 Dixon Landing Road. Figure 1 shows the proposed transportation route.

If the soil is accepted by the Kirby Canyon Landfill, the transport trucks will exit the site on North Winchester Boulevard and turn right to travel south for approximately 0.3 miles to Stevens Creek Boulevard; turn left on Stevens Creek Boulevard; and then take the on-ramp for the southbound California Highway 17 and travel for approximately 0.7 miles. The trucks will merge onto the southbound Interstate 280 Freeway and travel for approximately 2.6 miles; exit at the Guadalupe Parkway and continue on the southbound California Highway 87 for 4.9 miles, take the southbound California Highway 85 exit and continue for 5.2 miles, then take the Bernal Road exit; turn right on Bernal Road to Monterey Highway. Turn left on Monterey Highway and travel for 5.4 miles, and then turn left on Kirby Avenue to reach the landfill. Figure 2 shows the proposed route to the Kirby Canyon Landfill.

Approximately 30 to 35 truckloads of soil will be transported off-site per day. Transportation will be timed to avoid peak traffic hours.

2.8. RECORDKEEPING

The excavation contractor will be responsible for maintaining a field logbook during the removal action activities. The field logbook will serve to document observations, personnel on-site, truck arrival and departure times, and other vital project information.

2.9. HEALTH AND SAFETY

A health and safety plan (HASP) for the site has been prepared and included as Appendix B of the RAW. The selected contractor will prepare a site-specific HASP prior to initiation of site work. Everyone working at the site will be required to be familiar with the site-specific HASP.

2.10. CONTINGENCY PLAN

Each waste hauler is required to have a contingency plan prepared for emergency situations (vehicle breakdown, accident, spill or leak of materials, fire, explosion, etc.) during transportation of excavated soil from the Site to the designated disposal facility. Once the waste hauler is selected, a copy of its contingency plan will be attached to this Transportation Plan.

Figure 1. Proposed Route of Transportation to the BFI Newby Island Landfill

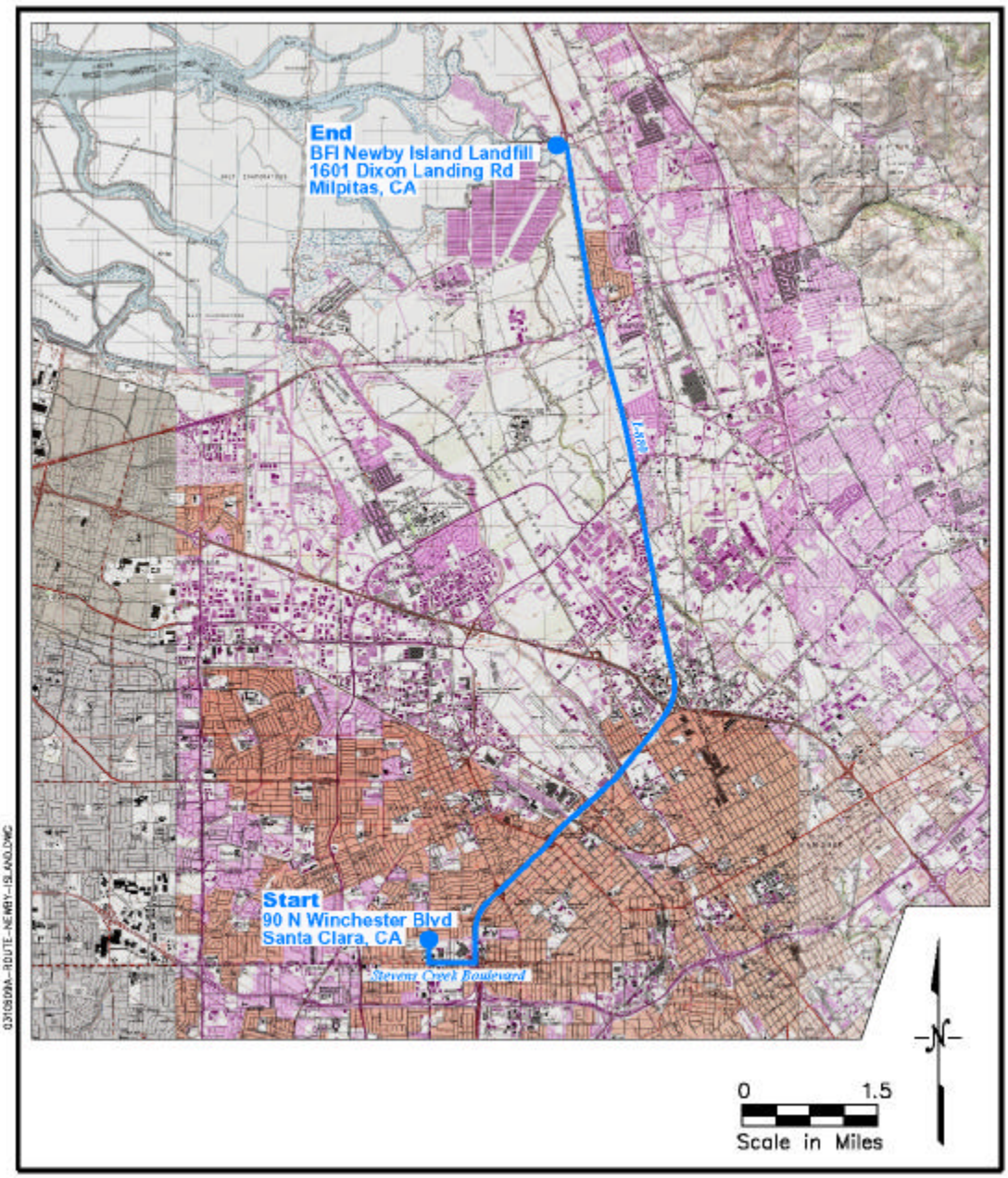

Figure 2. Proposed Route of Transportation to Kirby Canyon Landfill